

# ACTA PHYSIOLOGICA SCANDINAVICA

## Editorial Board

F. Buchthal København	K. Hartiala Turku	R. Nicolaysen Oslo
Y. Zotterman Stockholm	U. S. von Euler (Editor) Stockholm	

## Vol. 84. INDEX

### Fasc. 1. (January 1972)

Force and Contraction Velocity of the Middle Ear Muscles in the Cat and the Rabbit. By E. TEIG .....	1
Tension and Contraction Time of Motor Units of the Middle Ear Muscles in the Cat. By E. TEIG .....	11
Estimation of Alveolar $P_{O_2}$ . By G. ROSENHAMER .....	22
Correlation between Hyperinsulinemia and Hyperphagia in Rats with Ventromedial Hypothalamic Lesions. By B. E. HUSTVEDT and A. LØVE .....	29
Effects of Malate and Oxaloacetate in Canine Subcutaneous Adipose Tissue. By B. B. FREDHOLM .....	34
The Tissue Distribution of $^3H$ -Terbutaline (Br:canyl $^3H$ ) in Mice. By N. O. BODIN, E. HANSSON, C. H. RAMSAY and Å. RYRFELDT .....	40
The Volume Responses of Various Vascular Beds to a General Blood Loss. A Study Carried out in Rats Exposed to Two Different Procedures of Anesthesia. By P. AARSETH and H. PIENE .....	48
Effect of Brain Lesions and Chlorpromazine on Accumulation and Disappearance of Catecholamines Formed <i>in vivo</i> from $^{14}C$ -Tyrosine. By H. NYBÄCK .....	54
General Characteristics of Sympathetic Activity in Human Muscle Nerves. By W. DELIUS, K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN .....	65

Manoeuvres Affecting Sympathetic Outflow in Human Muscle Nerves. By W. DELIUS, K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN .....	82
Convergence in the Reciprocal Ia Inhibitory Pathway of Excitation from Descending Pathways and Inhibition from Motor Axon Collaterals. By H. HULTBORN and M. UDO .....	95
Uptake of Atropine and Methylatropine by Immature Choroid Plexus <i>in vitro</i> . By B. WINBLADH .....	109
Effect of 6-Hydroxydopamine on the Ganglion Cells and the Small Intensely Fluorescent Cells in the Superior Cervical Ganglion of the Rat. By L. ERÄNKÖ and O. ERÄNKÖ .....	115
Effect of Hydrocortisone on Histochemically Demonstrable Catecholamines in the Sympathetic Ganglia and Extraadrenal Chromaffin Tissue of the Rat. By L. ERÄNKÖ and O. ERÄNKÖ .....	125
The Motility of the Pancreatic Duct of the Cat; an <i>in-vitro</i> Study. By S. LENNINGER ..	134
<i>Short Communication:</i>	
Supraspinal Control of Monosynaptically Activated Group Ia Interneurones in the Ventral Horn. By H. HULTBORN and M. SANTINI .....	142

**Fasc. 2. (February 1972)**

A Respirometer for Tissue Cultures of Liver. By B. SANDSTRÖM .....	145
Reactions within Consecutive Vascular Sections of the Small Intestine of the Cat during Prolonged Hypotension. By U. HAGLUND and O. LUNDGREN .....	151
General Characteristics of Sympathetic Activity in Human Skin Nerves. By K.-E. HAG- BARTH, R. G. HALLIN, A. HONGELL, H. E. TOREBJÖRK and B. G. WALLIN .....	164
Manoeuvres Affecting Sympathetic Outflow in Human Skin Nerves. By W. DELIUS, K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN .....	177
Measurement of Blood Flow in Adipose Tissue from the Washout of Xenon-133 after Atraumatic Labelling. By S. L. NIELSEN .....	187
Reflex Relaxation of the Stomach Elicited from Receptors Located in the Heart. An Analysis of the Receptors and Afferents Involved. By H. ABRAHAMSSON and P. THORÉN .....	197
Splenic Blood Flow in the Guinea-Pig Measured with Xenon 133, and Calculation of the Venous Output of Lymphocytes from the Spleen. By G. SANDBERG .....	208
Postnatal Development of the Mechanical Response of the Isolated Rat Vas Deferens to Nerve Stimulation. By G. SWEDIN .....	217
Effect of Nerve Stimulation <i>in vitro</i> on the Noradrenaline Content of the Rat Vas Deferens in the Presence of Inhibitors of Noradrenaline Uptake and Synthesis. By G. SWEDIN .....	224
Subcellular Localization of the Prostaglandin System in the Rabbit Renal Papilla. By E. ÅNGGÅRD, S. O. BOHMAN, J. E. GRIFFIN III, C. LARSSON and A. B. MAUNSBACH .....	231
Microdetermination of Free Amino Acids in Pancreatic Islets Isolated from Obese-Hyper- glycemic Mice. By G. BRIEL, E. GYLFE, B. HELLMAN and V. NEUHOFF .....	247
Uptake of <sup>3</sup> H-Atropine in the Pancreatic Islets and the Parafollicular Cells of the Thyroid in Mice Shown by Microautoradiography. By P. SLANINA and H. TJÄLVE .....	254
The Oxygen Supply to the Retina. I. Effects of Changes in Intraocular and Arterial Blood Pressures, and in Arterial $P_{O_2}$ and $P_{CO_2}$ on the Oxygen Tension in the Vitreous Body of the Cat. By A. ALM and A. BILL .....	261
The Distribution of Xe-133 in the Left and Right Ventricular Walls of Dog Hearts after Left Ventricular Bolus Injection. By H. BAGGER .....	275
Method for Studying Qualitative and Quantitative Changes of Blood Flow in Skeletal Muscle. By P.-I. BRÄNEMARK and E. ERIKSSON .....	284

## Fasc. 3. (March 1972)

Light Sensitivity of the Compound Eye of a Moth ( <i>Manduca Sexta</i> ) Reared on a Retinol Deficient Diet. By J. BOETHIUS, S. D. CARLSON, G. HOGLUND and G. STRUWE .....	289
Changes in Precapillary Resistance in Skeletal Muscle Vessels Studied by Intravital Microscopy. By E. ERIKSSON and B. LISANDER .....	295
The Oxygen Supply to the Retina, II. Effects of High Intraocular Pressure and of Increased Arterial Carbon Dioxide Tension on Uveal and Retinal Blood Flow in Cats. By A. ALM and A. BILL .....	306
Storage of 5-Hydroxytryptamine in Rat Mast Cells. Evidence for an Ionic Binding to Carboxyl Groups in a Granule Heparin-Protein Complex. By A. BERGENDORFF and B. UVNÄS .....	320
The Influence of Crowding Phenomenon on the Oxygen Consumption of Blood Cells as Determined by the Cartesian Diver Technique. By I. TALSTAD .....	332
Chloride Transport across Isolated Frog Skin. By P. KRISTENSEN .....	338
Circulatory Control via Vagal Afferents. I. Adjustment of Heart Rate to Variations of Blood Volume in the Rat. By J. CASTENFORS and T. SJÖSTRAND .....	347
Circulatory Control via Vagal Afferents. II. Effects of Hemorrhage on Afferent Discharges via the Laryngeal Communicans in the Rat. By J. CASTENFORS, E. KNUTSSON and T. SJÖSTRAND .....	355
The Role of Cl <sup>-</sup> and other Anions in Active Na <sup>+</sup> Transport in Isolated Frog Skin. By E. G. HUF .....	366
Gas Permeability of the Alveolo-pleural Wall in the Mouse Lung. By B. ANDERSEN and J. MADSEN .....	382
The Effect of Slight Hypothermia on Liver Function as Measured by the Elimination Rate of Ethanol, the Hepatic Uptake and Excretion of Indocyanine Green and Bile Formation. By N. KRARUP and J. A. LARSEN .....	396
The Glomerular Filterability of Inulin and of Different Molecular Weight Preparations of Polyethylene Glycol in the Rabbit. By K. E. JØRGENSEN, J. V. MØLLER and M. I. SHEIKH .....	408
Effect of Increased Afterload on the Inotropic State and Uptake of Free Fatty Acids in the Intact Dog Heart. By J. KJEKSHUS and O. D. MØS .....	415

## Short Communications:

The Voluntary Regulation of Breathing in Man. By R. M. BERGSTRÖM, P. K. HALTTUNEN and A. V. VILJANEN .....	428
Monosynaptic Excitation of Dorsal Spinocerebellar Tract Neurones from Low Threshold Joint Afferents. By S. LINDSTRÖM and M. TAKATA .....	430

## Fasc. 4. (April 1972)

Effect of Cooling on Synaptic Transmission through the Cuneate Nucleus. By P. ANDERSEN, L. GJERSTAD and E. PASZTOR .....	433
Effects of Cooling on Inhibitory Processes in the Cuneate Nucleus. By P. ANDERSEN, L. GJERSTAD and E. PASZTOR .....	448
Cholinesterase Activity in Rough and Smooth Brain Microsomal Membranes. By M. HÄRKÖNEN, H. HELVE and H. TERÄVÄINEN .....	462
Influence of Plasma Hypertonicity on Blood Viscosity Studied <i>in vitro</i> and in an Isolated Vascular Bed. By S. N. RASMUSSEN .....	472
Proton- and Carbamino-linked Oxygen Affinity of Normal Human Blood. By L. GARBY, M. ROBERT and B. ZAAR .....	482

Convergence of Large Muscle Spindle (Ia) Afferents at Interneuronal Level in the Reciprocal Ia Inhibitory Pathway to Motoneurones. By H. HULTBORN and M. UDO	493
Bretylium and the Supersensitivity to Exogenous Noradrenaline after Sympathetic Denervation Studied in the Conscious Rat. By D. LUNDBERG	500
Prostaglandin Induced Inhibition of Neurotransmission in the Isolated Guinea Pig Seminal Vesicle. By P. HEDQVIST	506
The Effects of "Immunosympathectomy" on Blood Pressure and Vascular "Reactivity" in Normal and Spontaneously Hypertensive Rats. By B. FOLKOW, M. HALLBÄCK, Y. LUNDGREN and L. WEISS	512
Hedgehog Monoamine Oxidase. By H. BLASCHKO	524
Influence of Extracellular Calcium on Isometric Force and Velocity of Shortening in Depolarized Venous Smooth Muscle. By P. HELLSTRAND, B. JOHANSSON and A. RINGBERG	528
Catecholamine Storing Cells in Human Fetal Superior Cervical Ganglion. By A. HERVONEN and L. KANERVA	538
Effect of Physical Activity on the Metabolism in Collagen in Aged Mice. By E. HEIKKINEN and I. VUORI	543
Assay of the Transformation of Collagen <i>in situ</i> . By E. HEIKKINEN, K. IVASKA and E. KULONEN	550
Properties of Cortical Group I Neurones Located in the Lower Bank of the Anterior Suprasylvian Sulcus of the Cat. By H. SILFVENIUS	555

Abstracts from Meeting of the Scandinavian Physiological Society in Århus 3—4 March 1972

**Demonstrations**

Single Unit Discharges in Brain Slices Maintained <i>in vitro</i> . By P. ANDERSEN, B. BLAND, K. SKREDE, O. SVEEN and R. WESTGAARD	1A
Effect of L-DOPA on Long Ascending Propriospinal Pathways in the Cat. By J. BERGMANS, S. MILLER and D. J. REITSMA	2A
An Electrically Isolated Stimulator Unit for Neurophysiological Research. By E. EIDE	3A
Double Micromanipulator for Independent Impalements of One Neurone with Two Electrodes. By I. ENGBERG, Y. KÄLLSTRÖM and K. C. MARSHALL	4A
A Cutaneous Projection to the Pyriform Cortex in the Cat. By S. A. ANDERSSON and M. SANTINI	5A
Adaptive Structural Changes of the Resistance Vessels in Renal Hypertension. By M. HALLBÄCK, Y. LUNDGREN and L. WEISS	6A
Cardiovascular Responses to Acute Mental "Stress" in Spontaneously Hypertensive Rats (SHR). By B. FOLKOW, M. HALLBÄCK and L. WEISS	7A
The Effect of Prolonged Propranolol Treatment on Blood Pressure and Structural Design of the Resistance Vessels in Young Spontaneously Hypertensive Rats (SHR). By B. FOLKOW, Y. LUNDGREN and L. WEISS	8A
5-Hydroxytryptamine and Intestinal Blood Flow. By B. BIBER, J. FARA and O. LUNDGREN	9A
Reflex Bradycardia Elicited from Left Ventricular Receptors during Acute Severe Hypoxia in Cats. By P. THORÉN	10A
Distribution of Renal Cortical Blood Flow during Hemorrhagic Hypotension in Dogs. By K. AUKLAND, A. KIRKEBØ, E. LÖYNING and I. TYSSEBOTN	11A
A Difference between High- and Low-Drinking Rats in Effects of Ethanol in Ion Movements in Cerebral Tissue. By P. v. BOGUSLAWSKY and P. NIKANDER	12A

Effect of Oxygen on Human Adipose Tissue Blood Flow (ATBF). By M. HANSEN and J. MADSEN .....	13A
The Effect of Noradrenaline on the Splanchnic Elimination of Ethanol and Hepatic Excretory Function. By N. KRARUP .....	14A
The Immediate Effects of Ligation of a Liver Lobe. By J. A. LARSEN .....	15A
A Technique for Rapid Separation of Isolated Fat Cells from their Incubation Medium. By S. GAMMELTOFT, J. GLIEMANN, J. VINTEN and K. ØSTERLIND .....	15A
Changes in Serum Enzyme Levels after 90 km Cross-Country Skiing. By H. E. REFSUM, S. B. STRØMME and B. TVEIT .....	16A
Active State in Vascular Smooth Muscle. By B. JOHANSSON .....	17A
Changes in the Tissue Levels of cAMP in the Gall-Bladder and the Sphincter of Oddi Induced by the C-terminal Octapeptide of Cholecystokinin. By K.-E. ANDERSSON, R. ANDERSSON, P. HEDNER and C. G. A. PERSSON .....	19A
Ion Efflux in Denervated Frog Muscle. By E. GETTRUP .....	20A

### Communications

The Stimulating and Inhibitory Effect of Choline on Decamethonium Uptake by Rat Kidney Cortex Slices. By J. HOLM .....	22A
Amino Acid Transport in Isolated Rat Ovaries: Competitive Inhibition between Neutral Amino Acids and Effect of Follicle Stimulating Hormone. By K. AHRÉN, T. HILLENSJÖ and G. SELSTAM .....	23A
The Effect of $\text{CO}_2$ on the Permeability of the Blood-Brain Barrier to $\text{Cr}^{65}$ -EDTA and $\text{Na}^{24}$ . By S. C. SØRENSEN .....	24A
Wick Method for Measuring Interstitial Fluid Protein Concentration. By K. AUKLAND and H. O. FADNES .....	26A
The Importance of the Intestinal Countercurrent Exchanger for the Absorption of Fatty Acids. By U. HAGLUND, M. JODAL and O. LUNDGREN .....	27A
Glutamic Acid Sensitivity of Hippocampal Pyramidal Cell Dendrites. By J. D. DUDAR .....	28A
Visual Discrimination after Total Neonatal Removal of the Neocortex in the Cat. By K. NORRELL and U. NORRELL .....	29A
Afferents to the Dorsal Column Nuclei from the Dorsolateral Funiculus of the Spinal Cord. By G. GORDON and G. GRANT .....	30A
Concentrations of Free Amino Acids and Inorganic Ions in Red Blood Cells of Flounder ( <i>Pleuronectes flesus L.</i> ) during Adaptation to Fresh Water. By K. E. ZACHARIASSEN .....	31A
The Relationship between the Fluxes of Hydrogen and Oxygen Isotopes of Labelled Water and the Water Flux across a Hydrophobic Membrane. By N. V. B. MARSDEN and P. O'NEILL .....	32A
Effects of Lanthanum and of Oligomycin and Cyanide on Release of Vasopressin from Isolated Rat Neurohypophyses. By J. T. RUSSELL and N. A. THORN .....	33A
Enzyme Activity and Fiber Composition in Human Skeletal Muscle. By R. B. ARMSTRONG, P. D. GOLLNICK, K. PIEHL, B. SALTIN and C. W. SAUBERT .....	34A
Free Fatty Acids and Myocardial Function during Ischemia. By J. K. KJEKSHUS and O. D. MJØS .....	36A
Termination Areas of Climbing Fibre Paths in Paramedian Lobule. By J. D. COOKE, O. OSCARSSON and B. SJÖLUND .....	37A
Supernormality of Cerebellar Parallel Fibres: The Effects of Changes in Potassium Concentration <i>in vitro</i> . By A. R. GARDNER-MEDWIN .....	38A
Antidromic Activation of Renshaw Cells and the Distribution of their Axonal Branches. By E. JANKOWSKA and D.-O. SMITH .....	39A
Electrogenic Na-K-pump in the Retinula Cells of <i>Limulus</i> Lateral Eye. By O. P. HANSEN	40A

Effect of Ouabain and Hypoxia on the Electrogenic Properties of the Isolated Frog ( <i>Rana temporaria</i> ) Gastric Mucosa. By G. FLEMSTRÖM and K. J. ÖBRINK . . . . .	42A
The Importance of Blood-Borne Factors for the Maintenance of the Liver Cell Membrane Potential. By M. FOLKE . . . . .	43A
Thyroid Hormone Secretion Induced by Sympathetic Stimulation. By A. MELANDER, E. NILSSON and F. SUNDLER . . . . .	43A
Binding of <sup>125</sup> I-Insulin to Isolated Fat Cells. By S. GAMMELTOFT and J. GLIEMANN . . . . .	44A
Glucose Tolerance after Exercise in Juvenile Diabetics. By E. D. R. PRUETT and S. MÆHLUM . . . . .	45A
Contractures of Frog Muscle Fibres Evoked by Hypertonic Solutions. By J. LÄNNERGREN and J. NOTH . . . . .	46A
Contraction of Vascular Smooth Muscle Induced by Hyperosmolality. By C. ANDERSSON, P. HELLSTRAND, B. JOHANSSON and A. RINGBERG . . . . .	48A
Rapid Axonal Transport <i>in vitro</i> of Glycoproteins. By A. EDSTRÖM, H. MATTSSON and E. WALUM . . . . .	49A
The Effect of Hemorrhage on the Hepatic Metabolism and Hemodynamics. By N. KRARUP . . . . .	50A
The Effect of Simultaneous but Opposite Alterations in Pulse Amplitude and Frequency on Arterial Baroreceptor Activity. By E. KENDRICK, B. ÖBERG and G. WENNERGREN	51A
Mechanisms in Maintenance of Cardiac Output during Coronary Insufficiency. By J. KJEKSHUS, J. LEKVEN and O. D. MJOS . . . . .	52A

### Supplements

Supplementum 371. <sup>3</sup> H-Noradrenaline Release and Mechanical Response in the Field Stimulated Mouse Vas Deferens. By L.-O. FARNEBO and T. MALMFORS.
Release of Monoamines Evoked by Field Stimulation—Studies on Some Ionic and Metabolic Requirements. By L.-O. FARNEBO.
Synthesis of Noradrenaline in Isolated Rat Iris during Field Stimulation. By L.-O. FARNEBO and P. LIDBRINK.
Effect of d-Amphetamine on Spontaneous and Stimulation-Induced Release of Catecholamines. By L.-O. FARNEBO.
Supplementum 372. Insulin Secretion. Its Regulation by Monoamines and Acid Amyloglucosidase. By I. LUNDQUIST.
Supplementum 373. Long-Lasting Selective Depletion of Brain Serotonin by 5,6-Dihydroxytryptamine. By H. G. BAUMGARTEN, A. BJÖRKLUND, L. LACHENMAYER, A. NOBIN and U. STENEVI.

## INDEX AUCTORUM

AARSETH, P. and H. PIENE, Blood Depots and Anesthesia .....	48
ABRAHAMSSON, H. and P. THORÉN, Gastric Relaxation from Heart Receptors .....	197
ALM, A. and A. BILL, Oxygen Supply to Retina I .....	261
ALM, A. and A. BILL, Retinal Oxygen Supply. II .....	306
ÄNGGÅRD, E., S. O. BOHMAN, J. E. GRIFFIN III, C. LARSSON and A. B. MAUNSBACH, Prostaglandins in Renal Papilla .....	231
ANDERSEN, B. and J. MADSEN, Permeability of Alveolo-Pleural Wall .....	382
ANDERSEN, P., L. GJERSTAD and E. PASZTOR, Cooling and Cuneate Transmission .....	433
ANDERSEN, P., L. GJERSTAD and E. PASZTOR, Cooling and Cuneate Inhibition .....	448
BAGGER, H., Xe-133 Distribution in Heart .....	275
BERGENDORFF, A. and B. UVNÄS, Storage of 5-Hydroxytryptamine in Mast Cells .....	320
BERGSTRÖM, R. M., P. K. HALTTUNEN and A. V. VILJANEN, Voluntary Regulation of Breathing .....	428
BILL, A., see ALM, A., .....	261
BILL, A., see ALM, A., .....	306
BLASCHKO, H., Hedgehog Monoamine Oxidase .....	524
BODIN, N. O., E. HANSSON, C. H. RAMSAY and A. RYRFELDT, Tissue Distribution of Terbutaline .....	40
BOETHIUS, J., S. D. CARLSON, G. HÖGLUND and G. STRUWE, Compound Eye and Retinol Deficiency .....	289
BOHMAN, S. O., see ÄNGGÅRD, E., .....	231
BRÄNEMARK, P.-I. and E. ERIKSSON, Microcirculation in Skeletal Muscle .....	284
BRIEL, G., E. GYLFE, B. HELLMAN and V. NEUHOFF, Microdetermination of Free Amino Acids .....	247
CARLSON, S. D., see BOETHIUS, J., .....	289
CASTENFORS, J. and T. SJÖSTRAND, Circulatory Control via Vagal Afferents .....	347
CASTENFORS, J., E. KNUTSSON and T. SJÖSTRAND, Circulatory Control via Vagal Afferents II .....	355
DELIUS, W., K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN, Sympathetic Activity in Muscle Nerves .....	65
DELIUS, W., K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN, Control of Sympathetic Outflow to Muscles .....	82
DELIUS, W., K.-E. HAGBARTH, A. HONGELL and B. G. WALLIN, Control of Sympathetic Outflow to Skin .....	177
ERÄNKÖ, L. and O. ERÄNKÖ, 6-OH-DA on Ganglion Cells .....	115
ERÄNKÖ, L. and O. ERÄNKÖ, Hydrocortisone on Ganglion Cells .....	125
ERIKSSON, E., see BRÄNEMARK, P.-I., .....	284
ERIKSSON, E. and B. LISANDER, Precapillary Resistance in Muscle Vessels .....	295
FOJKOW, B., M. HALLBÄCK, Y. LUNDGREN and L. WEISS, Immunosympathectomy on Blood Pressure .....	512
FREDHOLM, B. B., Re-Esterification in Adipose Tissue .....	34
GARBY, L., M. ROBERT and B. ZAAR, Oxygen Affinity of Normal Human Blood .....	482
GJERSTAD, L., see ANDERSEN, P., .....	433
GJERSTAD, L., see ANDERSEN, P., .....	448
GRIFFIN, J. E., see ÄNGGÅRD, E., .....	231
GYLFE, E., see BRIEL, G., .....	247
HAGBARTH, K.-E., see DELIUS, W., .....	65
HAGBARTH, K.-E., see DELIUS, W., .....	82

HAGBARTH, K.-E., R. G. HALLIN, A. HONGELL, H. E. TOREBJÖRK and B. G. WALLIN, Sympathetic Activity in Skin Nerves .....	164
HAGBARTH, K.-E., see DELIUS, W., .....	177
HAGLUND, U. and O. LUNDGREN, Intestinal Blood Flow during Hypotension .....	151
HALLBÄCK, M., see FOLKOW, B., .....	512
HALLIN, R. G., see HAGBARTH, K.-E., .....	164
HALTTUNEN, P. K., see BERGSTRÖM, R. M., .....	428
HANSSON, E., see BODIN, N. O., .....	40
HÄRKÖNEN, M., H. HELVE and H. TERÄVÄINEN, Brain Microsomal Membranes .....	462
HEDQVIST, P., Prostaglandin-Inhibited Neurotransmission .....	506
HEIKKINEN, E. and I. VUORI, Collagen Metabolism in Aged Mice .....	543
HEIKKINEN, E., K. IVASKA and E. KULONEN, Transformation of Collagen <i>in situ</i> .....	550
HELLMAN, B., see BRIEL, G., .....	247
HELLSTRAND, P., B. JOHANSSON and A. RINGBERG, Ca and Vascular Smooth Muscle ..	528
HELVE, H., see HÄRKÖNEN, M., .....	462
HERVONEN, A. and L. KANERVA, Catecholamine Cells in Ganglion .....	538
HÖGLUND, G., see BOETHIUS, J., .....	289
HONGELL, A., see DELIUS, W., .....	65
HONGELL, A., see DELIUS, W., .....	82
HONGELL, A., see DELIUS, W., .....	177
HONGELL, A., see HAGBARTH, K.-E., .....	164
HUF, E. G., The Role of Cl <sup>-</sup> and Other Anions in Active Na <sup>+</sup> Transport .....	366
HULTBORN, H. and M. SANTINI, Supraspinal Control of Group Ia Interneurones ..	142
HULTBORN, H. and M. UDO, Convergence on Ia Inhibitory Interneurones .....	95
HULTBORN, H. and M. UDO, Convergence of Ia Afferents .....	493
HUSTVEDT, B. E. and A. LØVØ, Insulin in Hypothalamic Hyperphagia .....	29
IVASKA, K. see HEIKKINEN, E., .....	550
JOHANSSON, B., see HELLSTRAND, P., .....	528
JØRGENSEN, K. E., J. V. MØLLER and M. I. SHEIKH, Inulin Filterability .....	408
KANERVA, L., see HERVONEN, A., .....	538
KJEKSHUS, J. and O. D. MJØS, Cardiac Effects of Increased Afterload .....	415
KNUTSSON, E., see CASTENFORS, J., .....	355
KRARUP, N. and J. A. LARSEN, Hypothermia and Liver Function .....	396
KRISTENSEN, P., Cl <sup>-</sup> Transport in Frog Skin .....	338
KULONEN, E., see HEIKKINEN, E., .....	550
LARSEN, J. A., see KRARUP, N., .....	396
LARSSON, C., see ÅNGGÅRD, E., .....	231
LENNINGER, S., Pancreatic Duct Motility .....	134
LINDSTRÖM, S. and M. TAKATA, Excitation of Spinocerebellar Tract .....	430
LISANDER, B., see ERIKSSON, E., .....	295
LØVØ, A., see HUSTVEDT, B. E., .....	29
LUNDBERG, D., Noradrenaline Supersensitivity .....	500
LUNDGREN, Y., see FOLKOW, B., .....	512
LUNDGREN, O., see HAGLUND, U., .....	151
MADSEN, J., see ANDERSEN, B., .....	382
MAUNSBACH, A. B., see ÅNGGÅRD, E., .....	231
MJØS, O. D., see KJEKSHUS, J., .....	415
MØLLER, J. V., see JØRGENSEN, K. E., .....	408
NEUHOFF, V., see BRIEL, G., .....	247
NIELSEN, S. L., Blood Flow in Adipose Tissue .....	187
NYBÄCK, H., Brain Lesions and Chlorpromazine Effects .....	54
PASZTOR, E., see ANDERSEN, P., .....	433

PASZTOR, E., see ANDERSEN, P., . . . . .	448
PIENE, H., see AARSETH, P., . . . . .	48
RAMSAY, C. H., see BODIN, N. O., . . . . .	40
RASMUSSEN, S. N., Blood Viscosity and Hypertonicity . . . . .	472
RINGBERG, A., see HELLSTRAND, P., . . . . .	528
ROBERT, M., see GARBY, L., . . . . .	482
ROSENHAMER, G., Estimation of Alveolar $P_{O_2}$ . . . . .	22
RYRFELDT, Å., see BODIN, N. O., . . . . .	40
SANDBERG, G., Splenic Blood Flow . . . . .	208
SANDSTRÖM, B., A Respiriometer for Liver Cultures . . . . .	145
SANTINI, M., see HULTBORN, H., . . . . .	142
SHEIKH, M. I., see JØRGENSEN, K. E., . . . . .	408
SILFVENIUS, H., Suprasylvian Group I Neurones . . . . .	555
SJÖSTRAND, T., see CASTENFORS, J., . . . . .	347
SJÖSTRAND, T., see CASTENFORS, J., . . . . .	355
SLANINA, P. and H. TJÄLVE, Atropine in Pancreatic Islets . . . . .	254
STRUWE, G., see BOETHIUS, J., . . . . .	289
SWEDIN, G., Postnatal Vas Deferens Response . . . . .	217
SWEDIN, G., Noradrenaline in Vas Deferens . . . . .	224
TAKATA, M., see LINDSTRÖM, S., . . . . .	430
TALSTAD, I., $O_2$ Consumption of Blood Cells . . . . .	332
TEIG, E., Force and Speed of Middle Ear Muscles . . . . .	1
TEIG, E., Middle Ear Motor Units . . . . .	11
TERÄVÄINEN, H., see HÄRKÖNEN, M., . . . . .	462
THORÉN, P., see ABRAHAMSSON, H., . . . . .	197
TJÄLVE, H., see SLANINA, P., . . . . .	254
TOREBJÖRK, H. E., see HAGBARTH, K.-E., . . . . .	164
UDO, M., see HULTBORN, H., . . . . .	95
UDO, M., see HULTBORN, H., . . . . .	493
UVNÄS, B., see BERGENDORFF, A., . . . . .	320
WALLIN, B. G., see DELIUS, W., . . . . .	65
WALLIN, B. G., see DELIUS, W., . . . . .	82
WALLIN, B. G., see DELIUS, W., . . . . .	177
WALLIN, B. G., see HAGBARTH, K.-E., . . . . .	164
WEISS, L., see FOLKOW, B., . . . . .	512
VILJANEN, A. V., see BERGSTRÖM, R. M., . . . . .	428
WINBLADH, B., Choroid Plexus Uptake of Atropine . . . . .	109
VOORI, I., see HEIKKINEN, E., . . . . .	543
ZAAR, B., see GARBY, L., . . . . .	482



# ACTA PHYSIOLOGICA SCANDINAVICA

## Editorial Board

F. Buchthal København	K. Hartiala Turku	R. Nicolaysen Oslo
Y. Zotterman Stockholm	U. S. von Euler (Editor) Stockholm	

## Vol. 85. INDEX

### Fasc. 1. (May 1972)

Influence of Muscle Length on the Mechanical Parameters of Myocardial Contraction. By E. NILSSON .....	1
Potentiation of the Gastric Secretory Response to Sham Feeding in Dogs by Infusions of Gastrin and Pentagastrin. By L. SJÖDIN .....	24
Uptake of <sup>3</sup> H-Cortisol by Rabbit Polymorphonuclear Leukocytes <i>in vitro</i> II. Effect of Metabolic Inhibitors and of Temperature on Uptake and Washout. By B. SIMONSSON .....	33
Recurrent Depression from Motor Axon Collaterals of Supraspinal Inhibition in Moto- neurones. By H. HULTBORN and M. UDO .....	44
The Effect of Acetazolamide upon the Regulation of the Cerebrospinal Fluid pH in the Rat. By K. MESSETER .....	58
Reactive Hyperemia in Subcutaneous Adipose Tissue in Man. By S. L. NIELSEN and P. SEJRSEN .....	71
Cerebrospinal Fluid Clearance of Choline and Some Other Amines. By S.-M. AQUIL- NIUS and B. WINBLADH .....	78
Effects of Colchicine, Vinblastine and Vincristine on Degeneration Transmitter Release after Sympathetic Denervation Studied in the Conscious Rat. By D. LUNDBERG .....	91
Effects of Secretin, Cholecystokinin and Caerulein on Gastric Secretion in Response to Sham Feeding in Dogs. By L. SJÖDIN .....	99
Influence of Secretin and Cholecystokinin on Canine Gastric Secretion Elicited by Food and by Exogenous Gastrin. By L. SJÖDIN .....	110
Utilization of Yolk Cholesterol in the Developing Chick Embryo. By S. K. JAIN, P. E. LINDAHL and O. SVANBERG .....	118
Facilitation and Inhibition of Facial Reflexes in the Cat Induced by Peripheral Stimula- tion. By Chr. LINDQUIST .....	126

*Short Communications:*

Reciprocal Inhibition during the Stretch Reflex. By H. HULTBORN and A. LUNDBERG	136
Adrenergic and Nonadrenergic Axons of the Rabbit Uterus and Oviduct. By A. HERVONEN and L. KANERVA	139
Osmolar Control of Plasma Volume during Hemorrhagic Hypotension. By J. JÄRHULT, J. LUNDVALL, S. TIBBLEN and S. MELLANDER	142

*Fasc. 2. (June 1972)*

Studies on Left Ventricular Receptors, Signalling in Non-Medullated Vagal Afferents. By B. ÖBERG and P. THORÉN	145
Increased Activity in Left Ventricular Receptors during Hemorrhage or Occlusion of Caval Veins in the Cat. — A Possible Cause of the Vaso-vagal Reaction. By B. ÖBERG and P. THORÉN	164
The Influence of Deep Barbiturate Anesthesia upon the Regulation of Extra- and Intracellular pH in the Rat Brain during Hypercapnia. By K. MESSETER, U. PONTÉN and B. K. SIESJÖ	174
Analysis of Facial Reflex Facilitation and Inhibition by Microelectrode Recording from the Brain Stem. By CHR. LINDQUIST	183
Intracranial Pressure in Conscious Rabbits after Decentralization of the Superior Cervical Sympathetic Ganglia. By L. EDVINSSON, CH. OWMAN and K. A. WEST	193
Concentration of Noradrenaline in Pial Vessels, Choroid Plexus, and Iris during Two Weeks after Sympathetic Ganglionectomy or Decentralization. By L. EDVINSSON, CH. OWMAN, E. ROSENGREN and K. A. WEST	201
Hemodynamic Responses of Relaxed and Shivering Hypothermic New-Born Lambs. By A. KOIVIKKO and E. LÄNSIMIES	207
Hemodynamic Responses of Relaxed, $\beta$ -Blocked and Shivering Dogs during Hypothermia. By L. HALKOLA, A. KOIVIKKO and E. LÄNSIMIES	212
Characteristics of Monosaccharide Permeability in Arterial Tissue and Intestinal Smooth Muscle; Effect of Insulin. By H. J. ARNQVIST	217
The Pressure-Flow Relationship in Renal Cortical and Medullary Circulation. By G. GRÄNGSJÖ and M. WOLGAST	228
The Effect of Calcium on the Potassium Permeability in the Myelinated Nerve Fibre of <i>Xenopus Laevis</i> . By T. BRISMAR and B. FRANKENHAEUSER	237
A Note on the Influence of Asynchronous Activation on Myocardial Contraction. By M. JÖHANSSON and E. NILSSON	242
Thermoregulation during Positive and Negative Work at Different Environmental Temperatures. By B. NIELSEN, S. L. NIELSEN and F. B. PETERSEN	249
Fluid Transfer between Blood and Tissues during Exercise. By J. LUNDVALL, S. MELLANDER, H. WESTLING and T. WHITE	258
The Effects of Intraperitoneally and Intravenously Administered Pentobarbitone Anesthesia on Pulmonary and Splanchnic Blood Volumes in Rats. An Evaluation Carried out before and after Standardized Blood Losses. By P. AARSETH	270
Dehydration-Induced Reductions in Total Blood Volume and in Pulmonary Blood Volume in Rats. By P. AARSETH and D. KLUG	277

*Short Communications:*

Ultrastructural Changes Induced by Estrogen in the Adrenergic Nerves of the Rabbit Myometrium. By A. HERVONEN, L. KANERVA, R. LIETZEN and S. PARTANEN	283
Respiratory Arrest and Bradycardia during Anterolateral Diencephalic Stimulation in the Chicken. By P. V. KOTILAINEN and P. T. S. PUTKONEN	286

## Fasc. 3. (July 1971)

Effective Transmitter Concentrations in the Rat Portal Vein as Reflected by Neurogenic Potentiation of Responses to Exogenous Noradrenaline. By B. LJUNG and G. WENNERGREN .....	289
The Metabolism of Liver Cholesterol in the Young Chick. By O. SVANBERG and A. SVEDJELUND .....	297
Secretion from the Dog's Parotid at Different Time Intervals after Denervation. By J. HOLMBERG .....	305
Role of Cyclic AMP and $Ca^{++}$ in the Metabolic and Relaxing Effects of Catecholamines in Intestinal Smooth Muscle. By R. ANDERSSON .....	312
Studies of Blood-pressure Regulation IV. The Effects of Impulse Train Stimulation of the Carotid-sinus Nerves. By A. JONZON, P. A. ÖBERG, G. SEDIN and U. SJÖSTRAND .....	323
Content of Blood and of Extravascular Water in Cat Lungs during Changes in Total Blood Volume. By P. AARSETH and G. BØ .....	343
Pulmonary Blood- and Extravascular Water Volumes during Prolonged Post-Hemorrhagic Systemic Hypotension. By P. AARSETH and G. BØ .....	353
Gastric Absorption of L(+) and D(−) Lactic Acid and their Effects on the Transmucosal Ion Transport in Innervated, Non-secreting Cat Stomachs. By B. FRENNING .....	362
Excitability of the Acoustic m. Stapedius and m. Tensor Tympani Reflexes in the Non-anesthetized Rabbit. By E. BORG .....	374
Effects of Sympathetic Stimulation on Mechanoreceptors of Cat Vibrissae. By B. Y. NILSSON .....	390
Centrally Mediated Effects of Sodium and Angiotensin II on Arterial Blood Pressure and Fluid Balance. By B. ANDERSSON, L. ERIKSSON, O. FERNÁNDEZ, C.-G. KOLMODIN and R. OLTNER .....	398
Single Glomerular Blood Flow as Measured with Carbonized 141-Ce Labelled Microspheres. By Ö. KÄLLSKOG, H. R. ULFENDAHL and M. WOLGAST .....	408
Vagal and Sympathetic Efferent Discharge in the Bainbridge Reflex of Dogs. By M. O. K. HAKUMÄKI .....	414
Effects of Alterations in Calcium Concentrations on Secretion and Protein Synthesis in Cat Submandibular Salivary Gland. By K. M. GAUTVIK, M. KRIZ and K. LUND-LARSEN	418

## Short Communications :

The Inhibitory Effect of Vibrations on Tension Development in Vascular Smooth Muscle. By B. LJUNG and R. SIVERTSSON .....	428
On the Nature of the Spindle Potential: A Comment. By D. OTTOSON .....	431

## Fasc. 4. (August 1972)

Reflex Inhibition of Sympathetic Nerve Activity by Phenoxybenzamine. By H. AARS ..	433
Kininogenase Activity in the Stimulated Submandibular Salivary Gland in Cats. By K. M. GAUTVIK, K. NUSTAD and J. VYSTYD .....	438
Inhibition of the Uptake of Biogenic Amines into Mast Cells by Tricyclic Psychoactive Drugs. By M. FRISK-HOLMBERG .....	446
Left Ventricular Receptors Activated by Severe Asphyxia and by Coronary Artery Occlusion. By P. THORÉN .....	455
Vasoconstrictor Fibre Discharge to Skeletal Muscle, Kidney, Intestine and Skin at Varying Levels of Arterial Baroreceptor Activity in the Cat. By E. KENDRICK, B. ÖBERG and G. WENNERGREN .....	464

Studies on Myocardial Excitation of the Right Ventricle of the Dog Heart in Situ. By R. SAMUELSSON and U. SJÖSTRAND .....	477
Relationships between Force and Velocity of Shortening in Rabbit Papillary Muscle. By K. A. P. EDMAN and E. NILSSON .....	488
Effects of 2,4-Dinitrophenol on Release and Uptake of Noradrenaline in Guinea Pig Heart. By P. CHANG, U. S. VON EULER and F. LISHAJKO .....	501
The Fine Structure of the Paracervical (Frankenhäuser) Ganglion of the Rat after Permanganate Fixation. By A. HERVONEN, L. KANERVA and H. TERÄVÄINEN .....	506
Cholecystokinetic Effect and Concentration of Cyclic AMP in Gall-bladder Muscle <i>in vitro</i> . By K.-E. ANDERSSON, R. ANDERSSON and P. HEDNER .....	511
Dipsogenic Effects of Intracarotid Infusions of Various Hyperosmolal Solutions. By K. OLSSON .....	517
Effects on the Pulmonary Circulation of Suddenly Induced Intravascular Aggregation of Blood Platelets. By G. Bø and J. Hognestad .....	523
Effects of Chlorpromazine, Imipramine, and Quinidine on the Mechanical Activity of Single Skeletal Muscle Fibres of the Frog. By K.-E. ANDERSSON .....	532
The Effects of Vasoconstrictor Fibre Stimulation on the Consecutive Vascular Sections of the Small Intestine of the Cat during Prolonged Regional Hypotension. By U. HAGLUND and O. LUNDGREN .....	547
The Influence of Contraction Frequency and of a Local Anesthetic (Mepivacaine) on Human Fetal Myocardium. By G. GENNSER, M. JO'HANSSON and E. NILSSON .....	559
Sex Differences in the Catecholamine Output of Children. By G. JÓHANSSON .....	569
Increased Renal Excretion of Noradrenaline in Rats after Treatment with Prostaglandin Synthesis Inhibitor Indomethacin. By M. JUNSTAD and Å. WENNMALM .....	573

### Supplements

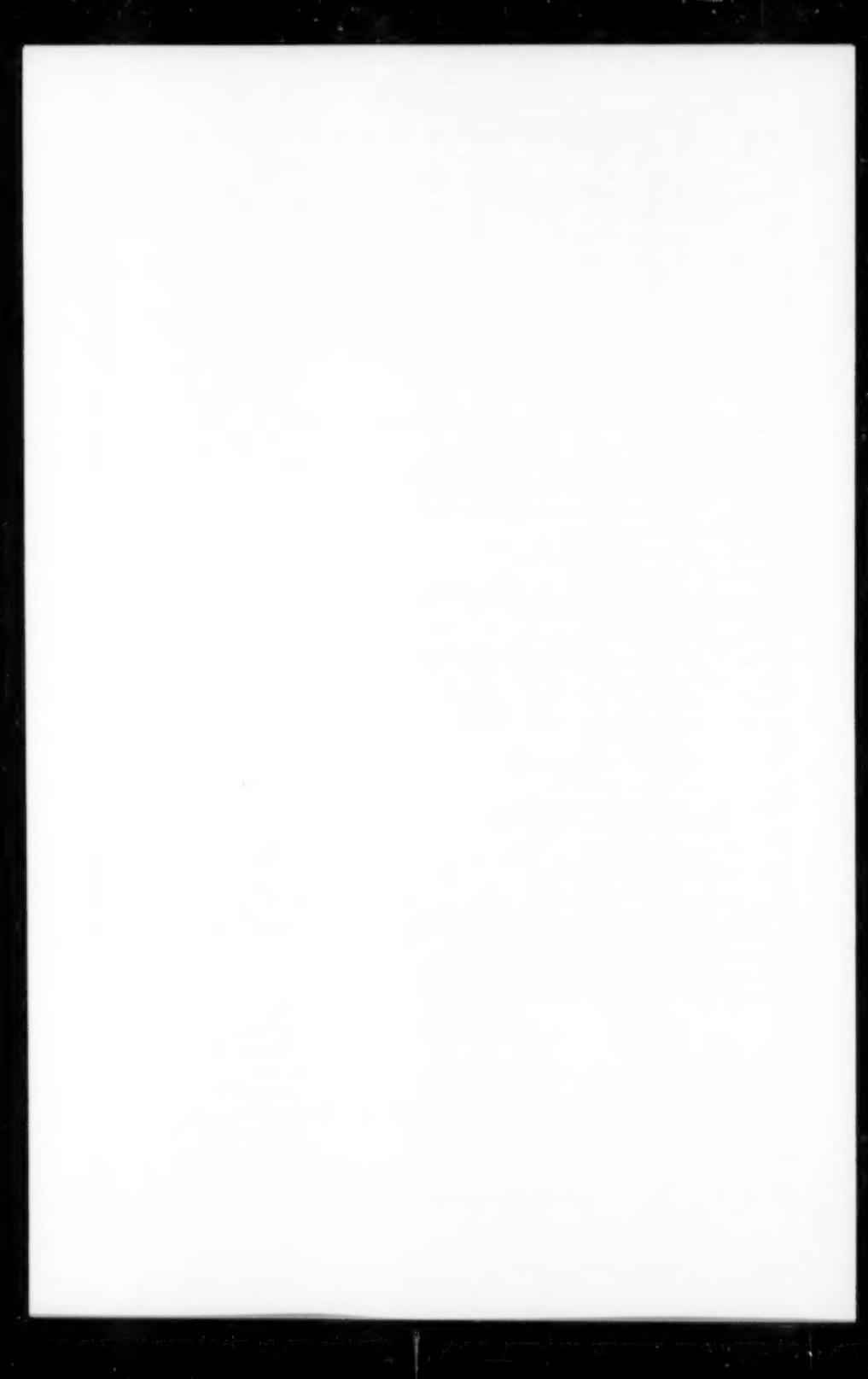
Supplementum 374. The Functional Ultrastructure of the Blood-Lymph Barrier. By G. GROTE, G. ARTURSON and T. GROTH.
Supplementum 375. Convergence on Intraneurones in the Ia Inhibitory Pathway to Motoneurones. By H. HULTBORN.
Supplementum 376. Drug-Induced Changes in the Release and Uptake of Biogenic Amines. A Study on Mast Cells. By M. FRISK-HOLMBERG.
Supplementum 377. Double Isotope Dilution Derivative Technique for Measurement of Catecholamines. By L. RENTZHOG.
Supplementum 378. Perfusion and Diffusion in Shock. By L. APPELGREN.

## INDEX AUCTORUM

AARS, H., Phenoxybenzamine Effect via Baroreflex .....	433
AARSETH, P., Vascular Depots and Anesthesia .....	270
AARSETH, P. and G. Bø, Intra-and Extravascular Lung Volumes .....	343
AARSETH, P. and G. Bø, Lung Water Volumes after Hemorrhage .....	353
AARSETH, P. and D. KLUG, Lung Blood Volume during Dehydration .....	277
ANDERSSON, R., Cyclic AMP in Smooth Muscle .....	312
ANDERSSON, K.-E., Chlorpromazine and Single Skeletal Muscle Fibres .....	532
ANDERSSON, K.-E., R. ANDERSSON and P. HEDNER, Cyclic AMP and Contraction of Gall-Bladder .....	511
ANDERSSON, B., L. ERIKSSON, O. FERNÁNDEZ, C.-G. KOLMODIN and R. OLTNER, $\text{Na}^+$ in Central Control of Body Fluids .....	398
AQUILONIUS, S.-M. and B. WINBLADH, Cerebrospinal Fluid Clearance of Choline .....	78
ARNQVIST, H. J., Monosaccharide Permeability in Smooth Muscle .....	217
Bø, G., see AARSETH, P., .....	343
Bø, G., see AARSETH, P., .....	353
Bø, G. and J. HOGNESTAD, Pulmonary Circulation and Platelets .....	523
BORG, E., Middle Ear Reflex Excitability .....	374
BRISMAR, T. and B. FRANKENHAEUSER, Calcium Effect on Potassium Permeability .....	237
CHANG, P., U. S. von EULER and F. LISHAKO, Noradrenaline Release by DNP .....	501
EDMAN, K. A. P. and E. NILSSON, Force-Velocity Relationships in Myocardium .....	488
EDVINSSON, L., CH. OWMAN and K. A. WEST, Intracranial Pressure and Sympathetic Decentralization .....	193
EDVINSSON, L., CH. OWMAN, E. ROSENGREN and K. A. WEST, Tissue Noradrenaline after Sympathectomy .....	201
ERIKSSON, L., see ANDERSSON, B., .....	398
EULER, U. S. v., see CHANG, P., Noradrenaline Release by DNP .....	501
FERNÁNDEZ, O., see ANDERSSON, B., .....	398
FRANKENHAEUSER, B., see BRISMAR, T., .....	237
FRENNING, B., Lactic Acid and Gastric Transmucosal Ion Transport .....	362
FRISK-HOLMBERG, M., Psychoactive Drugs and Biogenic Amines .....	446
GAUTVIK, K. M., M. KRIZ and K. LUND-LARSEN, Calcium and Secretion of Saliva .....	418
GAUTVIK, K. M., K. NUSTAD and J. VYSTYD, Kininogenase in Salivary Gland .....	438
GENNSER, G., M. JÓHANSSON and E. NILSSON, Mepivacaine on Fetal Heart .....	559
GRÄNGSJÖ, G. and M. WOLGAST, Renal Pressure-Flow Relationship .....	228
HAGLUND, U. and O. LUNDGREN, Intestinal Blood Flow during Hypotension .....	547
HALKOLA, L., A. KOIVIKKO and E. LÄNSIMIES, Hemodynamics in Hypothermic Dogs .....	212
HAKUMÄKI, M. O. K., Vagal and Sympathetic Efferent Discharge .....	414
HEDNER, P., see ANDERSSON, K.-E., .....	511
HERVONEN, A. and L. KANERVA, Adrenergic Neurons in Oviduct .....	139
HERVONEN, A., L. KANERVA and H. TERÄVÄINEN, Rat Paracervical Ganglion .....	506
HERVONEN, A., L. KANERVA, R. LIETZEN and S. PARTANEN, Adrenergic Nerves of Myometrium .....	283
HOGNESTAD, J., see Bø, G., .....	523
HOLMBERG, J., Secretion from Denervated Parotid .....	305
HULTBORN, H. and A. LUNDBERG, Reciprocal Inhibition during Stretch Reflex .....	136
HULTBORN, H. and M. UDO, Recurrent Depression of Supraspinal Inhibition .....	44
JAIN, S. K., P. E. LINDAHL and O. SVANBERG, Cholesterol in the Chick Embryo .....	118
JÄRHULT, J., J. LUNDVALL, S. MELLANDER and S. TIBBLIN, Osmotic Plasma Control in Hemorrhage .....	142

JOHANSSON, G., Catecholamine Output of Children .....	569
JÓHANSSON, M., see GENNSER, G., .....	559
JÓHANSSON, M. and E. NILSSON, Effects of Myocardial Asynchrony .....	242
JONZON, A., P. A. ÖBERG, G. SEDIN and U. SJÖSTRAND, Studies of Blood Pressure Regulation IV .....	323
JUNSTAD, M. and A. WENNMALM, Noradrenaline Excretion after Indomethacin .....	573
KÄLLSKOG, Ö., H. R. ULFENDAHL and M. WOLGAST, Glomerular Blood Flow .....	408
KANERVA, L., see HERVONEN, A., .....	139
KANERVA, L., see HERVONEN, A., .....	283
KANERVA, L., see HERVONEN, A., .....	506
KENDRICK, E., B. ÖBERG and G. WENNERGREN, Baroreceptors and Vasoconstrictor Discharge .....	464
KLUG, D., see AARSETH, P., .....	277
KOIVIKKO, A. and E. LÄNSIMIES, Hypothermic Lambs .....	207
KOIVIKKO, A., see HALKOLA, L., .....	212
KOLMODIN, C.-G., see ANDERSSON, B., .....	398
KOTILAINEN, P. V. and P. T. S. PUTKONEN, Apneic Bradycardia from Avian Thalamus. ....	286
KRIZ, M., see GAUTVIK, K. M., .....	418
LÄNSIMIES, E., see HALKOLA, L., .....	212
LÄNSIMIES, E., see KOIVIKKO, A., .....	207
LIEZEN, R., see HERVONEN, A., .....	283
LINDAHL, P. E., see JAIN, S. K., .....	118
LINDQUIST, CHR., Facial Reflexes .....	126
LINDQUIST, CHR., Recording from Facial Nucleus .....	183
LISHAJKO, F., see CHANG, P., .....	501
LJUNG, B. and R. SIVERTSSON, Vibrations on Vascular Smooth Muscle .....	428
LJUNG, B. and G. WENNERGREN, Effective Transmitter Concentrations .....	289
LUNDBERG, D., Colchicine on Degeneration Transmitter Release .....	91
LUNDBERG, A. see HULTBORN, H., .....	136
LUNDGREN, O., see HAGLUND, U., .....	547
LUND-LARSEN, K., see GAUTVIK, K. M., .....	418
LUNDVALL, J., see JÄRHULT, J., .....	142
LUNDVALL, J., S. MELLANDER, H. WESTLING and T. WHITE, Fluid Transfer during Exercise .....	258
MELLANDER, S., see JÄRHULT, J., .....	142
MELLANDER, S., see LUNDVALL, J., .....	258
MESSETER, K., Acetazolamide on CSF pH .....	58
MESSETER, K., U. PONTÉN and B. K. SIESJÖ, Phenobarbital and Brain Acid-Base Metabolism .....	174
NIELSEN, S. L. and P. SEJRSEN, Reactive Hyperemia in Adipose Tissue .....	71
NIELSEN, B., S. L. NIELSEN and F. B. PETERSEN, Thermoregulation during Work .....	249
NILSSON, E. Muscle Length and Myocardial Contraction .....	1
NILSSON, B. Y., Sympathetic Influence on Mechanoreceptors .....	390
NILSSON, E., see EDMAN, K. A. P., .....	488
NILSSON, E., see GENNSER, G., .....	559
NILSSON, E., see JÓHANSSON, M., .....	242
NUSTAD, K., see GAUTVIK, K. M., .....	438
ÖBERG, P. Å., see JONZON, A., .....	323
ÖBERG, B., see KENNDRICK, E., .....	464
ÖBERG, B. and P. THORÉN, Left Ventricular Receptors .....	145
ÖBERG, B. and P. THORÉN, Ventricular Receptors in Hemorrhage .....	164

OLSSON, K., Thirst Stimuli in the Goat .....	517
OLTNER, R., see ANDERSSON, B., .....	398
OTTOSON, D., Spindle Potential .....	431
OWMAN, CH., see EDVINSSON, L., .....	193
OWMAN, CH., see EDVINSSON, L., .....	201
PARTANEN, S., see HERVONEN, A., .....	283
PETERSEN, F. B., see NIELSEN, B., .....	249
PONTÉN, U., see MESSETER, K., .....	174
PUTKONEN, P. T. S., see KOTILAINEN, P. V., .....	286
ROSENGREN, E. see EDVINSSON, L., .....	201
SAMUELSSON, R. and U. SJÖSTRAND, Myocardial Excitation of the Right Ventricle .....	477
SEDIN, G., see JONZON, A., .....	323
SEJRSEN, P., see NIELSEN, S. L., .....	71
SIESJÖ, B. K., see MESSETER, K., .....	174
SIMONSSON, B., $^3\text{H}$ -Cortisol Uptake in Leukocytes .....	33
SIVERTSSON, R., see LJUNG, B., .....	428
SJÖDIN, L., Potentiated Response to Sham Feeding .....	24
SJÖDIN, L., Hormonal Effects on Gastric Secretion .....	99
SJÖDIN, L., Secretin and Cholecystokinin on Gastric Secretion .....	110
SJÖSTRAND, U., see JONZON, A., .....	323
SJÖSTRAND, U., see SAMUELSSON, R., .....	477
SVANBERG, O., see JAIN, S. K., .....	118
SVANBERG, O. and A. SVEDJELUND, Cholesterol Metabolism .....	297
SVEDJELUND, A., see SVANBERG, O., .....	297
TERÄVÄINEN, H., see HERVONEN, A., .....	506
THORÉN, P., Receptors Activation in Failing Hearts .....	455
THORÉN, P., see ÖBERG, B., .....	145
THORÉN, P., see ÖBERG, B., .....	164
TIEBLIN, S., see JÄRHULT, J., .....	142
UDO, M., see HULTBORN, H., .....	44
ULFENDAHL, H. R., see KÄLLSKOG, Ö., .....	408
WENNBERGREN, G., see LJUNG, B., .....	289
WENNBERGREN, G., see KENDRICK, E., .....	464
WENNMALM, Å., see JUNSTAD, M., .....	573
WEST, K. A., see EDVINSSON, L., .....	193
WEST, K. A., see EDVINSSON, L., .....	201
WESTLING, H., see LUNDVALL, J., .....	258
WHITE, T., see LUNDVALL, J., .....	258
WINBLADH, B., see AQUILONIUS, S.-M., .....	78
WOLGAST, M., see GRÄNGSJÖ, G., .....	228
WOLGAST, M., see KÄLLSKOG, Ö., .....	408
VYSTYD, J., see GAUTVIK, K. M., .....	438



# ACTA PHYSIOLOGICA SCANDINAVICA

## Editorial Board

F. Buchthal København	K. Hartiala Turku	R. Nicolaysen Oslo
Y. Zotterman Stockholm	U. S. von Euler (Editor) Stockholm	

## Vol. 86. INDEX

Fasc. 1. (September 1972)

The Influence of Chlorpromazine on the Uptake of Biogenic Amines by Rat Mast Cells <i>in vitro</i> . By M. FRISK-HOLMBERG and B. UVNÄS .....	1
Inhibition by Hippurate and Probencid of <i>in vitro</i> Uptake of Iodipamide and o-Iodohippurate. A Composite Uptake System for Iodipamide in Choroid Plexus, Kidney Cortex and Anterior Uvea of Several Species. By E. H. BÁRÁNY .....	12
The Sodium Transport Pool in Frog Skin under Open and Short Circuit Conditions. By L. LYTTKENS .....	28
A Comparison of Renal Function in Rats Anesthetized with Inactin and Sodium Amytal. By M. ELMER, P. C. ESKILSEN, L. Ø. KRISTENSEN and P. P. LEYSSAC .....	41
Facilitation from Ipsilateral Primary Afferents of Interneuronal Transmission in the Ia Inhibitory Pathway to Motoneurons. By L. FEDINA and H. HULTBORN .....	59
Shunting by Diffusion of Inert Gas in Skeletal Muscle. By P. SEJSEN and K. H. TØNNESSEN .....	82
The Role of Muscle Stiffness in Meeting the Changing Postural and Locomotor Requirements for Force Development by the Ankle Extensors. By S. GRILLNER .....	92
Effects of Hypoxia and Glucocorticoids on the Histochemically Demonstrable Catecholamines of the Newborn Rat Carotid Body. By A. HERVONEN, L. KANERVA, O. KORKALA and S. PARTANEN .....	109
Release of Acetylcholine in the Parotid Gland of the Dog during Stimulation of Post-ganglionic Nerves. By J. HOLMBERG .....	115
Pre- and Postganglionic Secretory Pathways for the Parotid Gland of the Dog. By J. HOLMBERG .....	120
<i>In Vitro</i> Work Load and Rat Heart Metabolism. I. Effect on protein synthesis. By Å. HJALMARSSON and O. ISAKSSON .....	126

**Fasc. 2. (October 1972)**

<i>In vitro</i> Studies on the Uptake of Biogenic Amines by Rat Mast Cells. By S. HEISLER and B. UVNÄS .....	145
The Effect of Bilateral Carotid Artery Ligation upon the Blood Flow and the Energy State of the Rat Brain. By B. EKLÖF and B. K. SIESJÖ .....	155
Effect of Training on Esterified Fatty Acids and Carnitine in Muscle and on Lipolysis in Adipose Tissue <i>in Vitro</i> . By S. O. FRÖBERG, I. ÖSTMAN and N. O. SJÖSTRAND .....	166
Regulation of Middle Ear Sound Transmission in the Nonanesthetized Rabbit. By E. BORG .....	175
Production and Removal of Lactate during Exercise in Man. By L. HERMANSEN and I. STENSVOLD .....	191
Low Flow States in the Microvessels of Skeletal Muscle in Cat. By E. ERIKSSON and B. LISANDER .....	202
Microvascular Dimensions and Blood Flow in Skeletal Muscle. By E. ERIKSSON and R. MYRIAGE .....	211
Coding of Amplitude and Frequency Modulated Sounds in the Cochlear Nucleus of the Rat. By A. R. MØLLER .....	223
The Action of Physostigmine, Morphine, Cyclopentolate and Homatropine on the Secretion and Outflow of Aqueous Humour in the Rabbit Eye. By R. UUSITALO .....	239
Lipid Biosynthesis from DL (2- <sup>14</sup> C) Mevalonic Acid in Intact Mice and Rabbits. By B. EDGREN and K. HELLSTRÖM .....	250
<i>In Vitro</i> Work Load and Rat Heart Metabolism. II. Effect on amino acid transport. By K. AHRÉN, A. HJALMARSON and O. ISAKSSON .....	257
Catecholamines and Cholinesterases in the Paracervical (Frankenhäuser) Ganglion of Normal and Pregnant Rats. By L. KANERVA, R. LIETZÉN and H. TERÄVÄINEN .....	271
Differential Effect of para-Chlorophenylalanine on the Two Slow Wave Sleep Stages in the Cat. By R. URSSIN .....	278
<i>Short Communication:</i>	
Fast and Slow Units in Extrinsic Eye Muscles of Cat. By G. LENNERSTRAND .....	286

**Fasc. 3. (November 1972)**

The Release of Protein in the Course of Catecholamine Secretion from Bovine Adrenals Perfused <i>in Vitro</i> . By G. SERCK-HANSEN .....	289
Cardiac Noradrenaline Turnover and Urinary Catecholamine Excretion in Trained and Untrained Rats during Rest and Exercise. By I. ÖSTMAN, N. O. SJÖSTRAND and G. SWEDIN .....	299
Muscle Metabolites with Exhaustive Static Exercise of Different Duration. By J. KARLSSON and B. OLLANDER .....	309
Effect of Sympathetic and Parasympathetic Stimulation on the Secretion and Outflow of Aqueous Humour in the Rabbit Eye. By R. UUSITALO .....	315
Functional Dependence of the Ciliary Epithelium ATPase Activity and Intra-Ocular Pressure on the Autonomic Nervous System. By M. HÄRKÖNEN, A. PALKAMA and R. UUSITALO .....	327
<i>In Vitro</i> Work Load and Rat Heart Metabolism. III. Effect on ribosomal aggregation. By A. HJALMARSON and O. ISAKSSON .....	342
Choline Acetyltransferase in the Normal and Parasympathetically Denervated Parotid Gland of the Dog. By J. EKSTRÖM and J. HOLMBERG .....	353
Histochemical Studies of Uterine Innervation after Neurectomies. By L. KANERVA, T. MUSTONEN and H. TERÄVÄINEN .....	359

The Dynamic Properties of the Acoustic Middle Ear Reflex in Nonanesthetized Rabbits.	366
Quantitative Aspects of a Polysynaptic Reflex System. By E. BORG .....	366
Enhancement by Indomethacin of Cold-Induced Hypersecretion of Noradrenaline in the Rat <i>in vivo</i> —by Suppression of PGE-Mediated Feed-back Control? By L. STJÄRNE	388
Depression of $^3\text{H}$ -Glucose Uptake into Rabbit Polymorphonuclear Leukocytes by Glucocorticoids in Concentrations Partly Saturating the Specific Glucocorticoid Uptake. Evidence for a Glucocorticoid Receptor. By B. SIMONSSON .....	398
Extent of Engagement of Various Cardiovascular Effectors to Alterations of Carotid Sinus Pressure. By E. KENDRICK, B. ÖBERG and G. WENNBERGREN .....	410
Plasma-Kinins and Adrenergic Vasodilatation in the Submandibular Salivary Gland of the Cat. By K. M. GAUTVIK, M. KRIZ and K. LUND-LARSEN .....	419

*Short Communications:*

A Sulphomucopolysaccharide-Protein Complex in the Adrenergic Vesicle (Granule) Fraction from Nerves and Tissue. By C.-H. ÅBORG, G. FILLION, R. NOSÁL and B. UVNÄS .....	427
Analysis of Prostaglandin $\text{F}_{2\alpha}$ and Metabolites in Blood during Constant Intravenous Infusion of Prostaglandin $\text{F}_{2\alpha}$ in the Human Female. By F. BEGUIN, M. BYGDEMAN, K. GRÉEN, B. SAMUELSSON, M. TOPPOZADA and N. WIQVIST .....	430

**Fasc. 4. (December 1972)**

Incorporation of Reserpine into Isolated Rat Peritoneal Mast Cells and Mast Cell Granules <i>in vitro</i> . By J. GRIPENBERG, S.-E. JANSSON and T. PARTANEN .....	433
Comparison of the Effect of Different Types of Exercise on the Baroreflex Regulation of Heart Rate. By D. J. C. CUNNINGHAM, E. STRANGE PETERSEN, R. PETO, T. G. PICKERING and P. SLEIGHT .....	444
The Effects of Hypoxia, Hypercapnia, and Asphyxia on the Baroreceptor-Cardiac Reflex at Rest and during Exercise in Man. By D. J. C. CUNNINGHAM, E. STRANGE PETERSEN, T. G. PICKERING and P. SLEIGHT .....	456
Pulmonary Hypertension during Systemic Hypotension. Effects of Oxygen Breathing and of Vasodilators. By G. BØ, A. HAUGE and J. HOGNESTAD .....	466
Response to Submaximal and Maximal Exercise at Different Levels of Carboxyhemoglobin. By B. EKBLOM and R. HUOT .....	474
Effect of Adrenaline on Amino Acid Transport in Perfused Rat Heart. By O. ISAKSSON and B. KÄLLFELT .....	483
Steady State Contribution of the Na, K-Pump to the Membrane Potential Identified Neurons of a Terrestrial Snail, <i>Helix Pomatia</i> . By G. R. J. CHRISTOFFERSEN .....	498
Cerebral Energy State and Cerebral Venous $\text{P}_{\text{O}_2}$ in Experimental Hypotension Caused by Bleeding. By B. EKLÖF, V. MACMILLAN and B. K. SIESJÖ .....	515
The Effect of Bilateral Carotid Artery Ligation upon Acid-Base Parameters and Substrate Levels in the Rat Brain. By B. EKLÖF and B. K. SIESJÖ .....	528
Choline Acetyltransferase in Salivary Glands after Surgical and Chemical Sympathectomy. By J. EKSTRÖM .....	539
Motoneurone Models Based on "Voltage Clamp Equations" for Peripheral Nerve. By D. KERNELL and H. SJÖHOLM .....	546
Augmented Noradrenaline Release Following Nerve Stimulation after Inhibition of Prostaglandin Synthesis with Indomethacin. By P. H. CHANH, M. JUNSTAD and A. WENNMALM .....	563

*Short Communications:*

A Paradoxical EEG Response during Combined Hypoxemia and Unilateral Carotid Artery Ligation in the Rat. By K. HOUGAARD, F. PLUM, L. G. SALFORD and B. K. SIESJÖ ..... 568

Comparison between the Membrane Phases of the Catecholamine Storage Vesicles from the Adrenal Medulla and the Sympathetic Nerve Trunk. By K. B. HELLE and H. LAGERCRANTZ ..... 571

Prostaglandin E Restricting Noradrenaline Secretion—Neural in Origin? By L. STJÄRNE 574

**Supplements**

Supplementum 379. Tissue Hyperosmolality as a Mediator of Vasodilatation and Transcapillary Fluid Flux in Exercising Skeletal Muscle. By J. LUNDVALL.

Supplementum 380. Seasonal Variations in the Physiology and Biochemistry of the European Hedgehog (*Echinaceus europeus*) Including Comparisons with Non-Hibernators Guinea-pig and Man. By B. JOHANSSON and J. B. SENTURIA.

Supplementum 381. Acetylcholine-Induced Ion Transports Involved in the Formation of Saliva. By O. H. PETERSEN.

## INDEX AUCTORUM

ÅBORG, C.-H., G. FILLION, R. NOSÁL and B. UVNÄS, Binding Complex in Adrenergic Nerves . . . . .	427
AHRÉN, K., Å. HJALMARSON and O. ISAKSSON, Heart Amino Acid Transport . . . . .	257
BÁRÁNY, E. H., Iodipamide Uptake . . . . .	12
BEGUIN, F., M. BYGDEMAN, K. GRÉEN, B. SAMUELSSON, M. TOPPOZADA and N. WIQUIST, Prostaglandin and Metabolites in Blood . . . . .	430
BO, G., A. HAUGE and J. HOGNSTAD, Pulmonary Vasoconstriction in Hemorrhage . . . . .	466
BORG, E., Regulation of Middle Ear Sound Transmission . . . . .	175
BORG, E., Dynamic Properties of Acoustic Reflex . . . . .	366
BYGDEMAN, M., see BEGUIN, F., . . . . .	430
CHANH, P. H., M. JUNSTAD and A. WENNMALM, Noradrenaline Release after Indomethacin . . . . .	563
CHRISTOFFERSEN, G. R. J., Na, K-Pump and Membrane Potential . . . . .	498
CUNNINGHAM, D. J. C., E. S. PETERSEN, T. G. PICKERING and P. SLEIGHT, Gaseous Stimuli and Baroreflex . . . . .	456
CUNNINGHAM, D. J. C., E. S. PETERSEN, R. PETO, T. G. PICKERING and P. SLEIGHT, Exercise and the Baroreflex . . . . .	444
EDGREN, B. and K. HELLSTRÖM, Lipid Biosynthesis . . . . .	250
EKBLOM, B. and R. HUOT, COHB Effect on Exercise . . . . .	474
EKLÖF, B. and B. K. SIESJÖ, Cerebral Effects of Carotid Ligation . . . . .	155
EKLÖF, B. and B. K. SIESJÖ, Brain Acidosis after Carotid Ligation . . . . .	528
EKLÖF, B., V. MACMILLAN and B. K. SIESJÖ, Brain Energy State in Hypotension . . . . .	515
EKSTRÖM, J., Choline Acetyltransferase in Salivary Glands . . . . .	539
EKSTRÖM, J. and J. HOLMBERG, Choline Acetyltransferase in Dog Parotid. . . . .	353
ELMER, M., P. C. ESKILDSEN, L. O. KRISTENSEN and P. P. LEYSSAC, Renal Function in Anesthetized Rats . . . . .	41
ERIKSSON, E. and B. LISANDER, Microcirculation in Skeletal Muscle . . . . .	202
ERIKSSON, E. and R. MYRHAGE, Microcirculation in Skeletal Muscle . . . . .	211
ESKILDSEN, P. C., see ELMER, M. . . . .	41
FEDINA, L. and H. HULTBORN, Facilitation of Ia IPSPs from Ipsilateral Afferents . . . . .	59
FILLION, G., see ÅBORG, C.-H., . . . . .	427
FRISK-HOLMBERG, M. and B. UVNÄS, Chlorpromazine Effect on Amine Uptake . . . . .	1
FRÖBERG, S. O., I. ÖSTMAN and N. O. SJÖSTRAND, Lipid Metabolism and Training . . . . .	166
GAUTVIK, K. M., M. KRIZ and K. LUND-LARSEN, Plasma-Kinins in Salivary Gland . . . . .	419
GRÉEN, K., see BEGUIN, F., . . . . .	430
GRILLNER, S., Significance of Muscle Stiffness . . . . .	92
GRIPIENBERG, J., S.-E. JANSSON and T. PARTANEN, Reserpine Incorporation into Mast Cells . . . . .	433
HÄRKÖNEN, M., A. PALKAMA and R. UUSITALO, Functional Dependence of the Ciliary Epithelium . . . . .	327
HAUGE, A., see BO, G., . . . . .	466
HEISLER, S. and B. UVNÄS, Uptake of Amines by Rat Mast Cells . . . . .	145
HELLE, K. B. and H. LAGERCRANTZ, Catecholamine Vesicles . . . . .	571
HELLSTRÖM, K., see EDGREN, B., . . . . .	250
HERMANSEN, L. and I. STENSVOOLD, Production and Removal of Lactate . . . . .	191
HERVONEN, A., L. KANERVA, O. KORKALA and S. PARTANEN, Catecholamines in Carotid Body . . . . .	109
HJALMARSON, Å., see AHRÉN, K., . . . . .	257
HJALMARSON, Å. and O. ISAKSSON, Heart Protein Synthesis . . . . .	126

HJALMARSON, Å. and O. ISAKSSON, Heart Ribosomal Aggregation . . . . .	342
HOGNESTAD, J., see BØ, G., . . . . .	466
HOLMBERG, J., Acetylcholine Release in Dog Parotid . . . . .	115
HOLMBERG, J., Pre- and Postganglionic Nerve to Dog Parotid . . . . .	120
HOLMBERG, J., see EKSTRÖM, J., . . . . .	353
HOUGAARD, K., F. PLUM, L. G. SALFORD and B. K. SIESJÖ, A Paradoxical EEG Response	568
HUOT, R., see EKBLOM, B., . . . . .	474
HULTBORN, H., see FEDINA, L., . . . . .	59
ISAKSSON, O., see AHRÉN, K., . . . . .	257
ISAKSSON, O., see HJALMARSON, Å., . . . . .	126
ISAKSSON, O., see HJALMARSON, Å., . . . . .	342
ISAKSSON, O. and B. KÄLLFELT, Adrenaline and Heart Amino Acid Transport . . . . .	483
JANSSON, S.-E., see GRIPENBERG, J., . . . . .	433
JUNSTAD, M., see CHANH, P. H., . . . . .	563
KÄLLFELT, B., see ISAKSSON, O., . . . . .	483
KANERVA, L., see HERVONEN, A., . . . . .	109
KANERVA, L., R. LIETZÉN and H. TERÄVÄINEN, Paracervical Ganglion . . . . .	271
KANERVA, L., T. MUSTONEN and H. TERÄVÄINEN, Uterine Innervation . . . . .	359
KARLSSON, J. and B. OLLANDER, Muscle Metabolites in Exercise . . . . .	309
KENDRICK, E., B. ÖBERG and G. WENNERGREN, Circulatory Effects of Sinus Pressure Changes . . . . .	410
KERNELL, D. and H. SJÖHOLM, Motoneurone Models . . . . .	546
KORKALA, O., see HERVONEN, A., . . . . .	109
KRISTENSEN, L. O., see ELMER, M., . . . . .	41
KRIZ, M., see GAUTVIK, K. M., . . . . .	419
LAGERCRANTZ, H., see HELLE, K. B., . . . . .	571
LENNERSTRAND, G., Eye Muscle Units . . . . .	286
LEYSSAC, P. P., see ELMER, M., . . . . .	41
LIETZÉN, R., see KANERVA, L., . . . . .	271
LISANDER, B., see ERIKSSON, E., . . . . .	202
JUND-LARSEN, K., see GAUTVIK, K. M., . . . . .	419
LYTTKENS, L., Sodium Transport Pool in Frog Skin . . . . .	28
MACMILLAN, V., see EKLÖF, B., . . . . .	515
MØLLER, A. R., Coding in Cochlear Nucleus . . . . .	223
MUSTONEN, T., see KANERVA, L., . . . . .	359
MYRHAGE, R., see ERIKSSON, E., . . . . .	211
NOSÁL, R., see ÅBORG, C.-H., . . . . .	427
ÖBERG, B., see KENDRICK, E., . . . . .	410
OLLANDER, B., see KARLSSON, J., . . . . .	309
ÖSTMAN, I., see FRÖBERG, S. O., . . . . .	166
ÖSTMAN, I., N. O. SJÖSTRAND and G. SWEDIN, Cardiac Noradrenaline Turnover . . . . .	299
PALKAMA, A., see HÄRKÖNEN, M., . . . . .	327
PARTANEN, T., see GRIPENBERG, J., . . . . .	433
PARTANEN, S., see HERVONEN, A., . . . . .	109
PETERSEN, E. S., see CUNNINGHAM, D. J. C., . . . . .	444
PETERSEN, E. S., see CUNNINGHAM, D. J. C., . . . . .	456
PETO, R., see CUNNINGHAM, D. J. C., . . . . .	444
PICKERING, T. G., see CUNNINGHAM, D. J. C., . . . . .	444
PICKERING, T. G., see CUNNINGHAM, D. J. C., . . . . .	456
PLUM, F., see HOUGAARD, K., . . . . .	568
SALFORD, L. G., see HOUGAARD, K., . . . . .	568

SAMUELSSON, B., see BEGUIN, F.,	430
SEJRSEN, P. and K. H. TØNNESSEN, Shunting by Diffusion	82
SERCK-HANSEN, G., Protein Release from Adrenals	289
SIESJÖ, B. K., see EKLÖF, B.,	155
SIESJÖ, B. K., see EKLÖF, B.,	515
SIESJÖ, B. K., see EKLÖF, B.,	528
SIESJÖ, B. K., see HOUGAARD, K.,	568
SIMONSSON, B., Depression of $^3\text{H}$ -Glucose Uptake in Leukocytes	398
SJÖHOLM, H., see KERNELL, D.,	546
SJÖSTRAND, N. O., see FRÖBERG, S. O.,	166
SJÖSTRAND, N. O., see ÖSTMAN, I.,	299
SLEIGHT, P., see CUNNINGHAM, D. J. C.,	444
SLEIGHT, P., see CUNNINGHAM, D. J. C.,	456
STENSVOLD, I., see HERMANSSEN, L.,	191
STJÄRNE, L., Catecholamine Excretion after Indomethacin	388
STJÄRNE, L., Neural Prostaglandin and Noradrenaline Secretion	574
SWEDIN, G., see ÖSTMAN, I.,	299
TERÄVÄINEN, H., see KANERVA, L.,	271
TERÄVÄINEN, H., see KANERVA, L.,	359
TØNNESSEN, K. H., see SEJRSEN, P.,	82
TOPPOZADA, M., see BEGUIN, F.,	430
URSIN, R., PCPA and SWS Stages in the Cat	278
UUSITALO, R., Drugs on Aqueous Humour Secretion	239
UUSITALO, R., Nerve Stimulation on Aqueous Humour	315
UUSITALO, R., see HÄRKÖNEN, M.,	327
UVNÄS, B., see ÅBORG, C.-H.,	427
UVNÄS, B., see FRISK-HOLMBERG, M.,	1
UVNÄS, B., see HEISLER, S.,	145
WENNBERGREN, G., see KENDRICK, E.,	410
WENNMALM, Å., see CHANH, P. H.,	563
WIQUIST, N., see BEGUIN, F.,	430



